## OBSERVATIONS ON THE VIOLET-GREEN SWALLOW

BY A. E. SHIRLING

Talk about housing problems! Boom towns in gold rush times had no greater shelter problems than is the shortage of nesting eavities among Violet-green Swallows in the western mountain regions.

The Violet-green Swallow (Tachycineta thalassina lepida) is to the Colorado mountains what the English Sparrow is to eastern and central states. It is the most eommon bird about cottages and towns. In respect to relative abundance, it exceeds the English Sparrow, for the sparrow's range is confined to human surroundings of houses, barns, and pienic grounds. The Violet-green Swallow, while most abundant in the neighborhood of human dwellings, ranges widely up the mountain slopes and unfrequented forest lands.

The Violet-green Swallow has a great advantage over the English Sparrow from the point of beauty and popularity. It is a most beautiful bird in color, in trimness of shape, and in gracefulness of flight. It is pure white beneath and iridescently violet and green above, with violet rump, dark green back, and black wings. With its long tapering wings it is tircless in flight, and its aerial aerobatic movements are performed with astonishing ease and grace as it collects insect food from the air.

This swallow is not a pugnacious bird, but somehow it manages by quiet, persistent insistence to attain its end and to succeed in the struggle for existence, somewhat to the detriment of other species. So well has it succeeded, that the most trying phase of its struggle for existence among the cottages is with members of its own species rather than with other kinds of birds and enemies. More specifically, it is a struggle for nesting sites.

Violet-green Swallows nest in eavities. In olden times deserted woodpeeker burrows in trees furnished most of the nesting places, but with man's advent bringing buildings, artificial bird houses, and various types of knot-hole eavities, the birds are eapitalizing on these. So keen is the struggle for nesting places that there is not only a waiting line, but apparently more than one pair of birds are eoneerned with one nest.

We were watching a nest one day, keeping tab on the number of feeding visits of the parent birds to their young in the nest. It soon became clear that more adult birds were coming to the nest than bird-housing ordinances allow. One female swallow came with food, entered the nest and before she had gone another came, perched on the stub of a branch sticking out from the hollow nesting log and tried

to enter by way of a knot hole that was too small. Then as the first female left, the second one entered the nest, remained for a few seconds and left. (At close range and in good light sexes could be quite readily distinguished by the duller colors and grayish cheek of the female). This performance was repeated several times within an hour, one female persistently trying first to enter by way of the small knothole, then, failing, would enter by way of the larger opening. The other female went directly to the real entrance. One male bird stood guard and rarely entered the nest. He was kept busy chasing other male swallows away, but did not seem to object to either of the females coming.

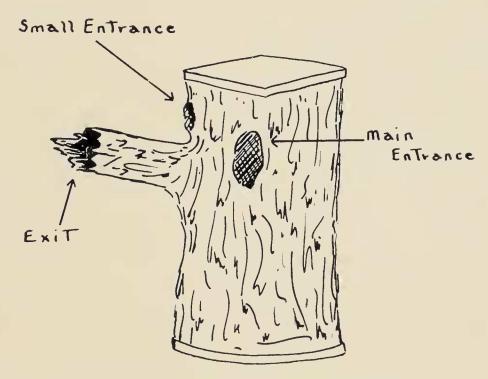


Fig. 20. Nesting box of the Violet-green Swallows.

This performance of more than one female swallow visiting the same nest was not a coincidence, nor the only instance of unusual nesting behavior of the Violet-green Swallows. After our suspicions and curiosity were aroused, we gave special attention to the birds in order to verify our first observations.

Another nest, built in a bird house made from a twisted hollow limb fastened to a pine tree near my window, could be most conveniently observed. Here, too, there was more than one female swallow interested in the nest. At one time three female birds and one male were at the nest. The male, keeping guard, paid little attention to the other birds unless it was a bird of some other species that arrived, or a male Violet-green Swallow. A female swallow, which may be termed No. 1. entered the nest to feed the young. Another came and lit on a branch near by, then fluttered at the entrance to the nest but did not enter. Bird No. 1 left and at the same time bird No. 3 arrived and entered the nest, remained a few seconds, flew out, and perched on the branch near bird No. 2 and the male. Bird No. 1 eame back after a few minutes, chased Nos. 2 and 3 away and entered the nest. At other times one of the extra females would peck at the male guard and try to drive him away without any retaliation on his part.

Female No. I seemed to have priority of claim to the nest. She often remained with her head at the doorway and pecked at intruders. She was also on very good terms with the male. The other female birds seemed to be merely meddlesome busybodies who had no home of their own nor young to care for, and, like a cat that has lost her kittens, just had to have some one to mother.

Mountain Bluebirds have some slight advantage over the Violetgreen Swallows in securing nesting places. They arrive earlier in the season and have begun housekeeping before the swallows arrive. Even so, they have to keep close guard or their nest will be taken.

A bluebird built in a nesting box under the caves of the lodge at Camp Olympus, Estes Park. When the swallows arrived they tried to take the place but were warded off by the vigilant male bluebird. A pair of swallows then began a patient endurance waiting game. They remained at hand constantly. If opportunity were given they would perch at the doorway and peek in. This was especially noticeable when the young bluebirds grew older and were about ready to leave the nest. Finally, when they did leave, that very day the Violet-green Swallows entered and took possession.

Violet-green Swallows are near kin to Tree Swallows that inhabit northern portions of the United States and Canada and, during migration, travel across the central portions of the country. Other relatives are Cliff or Eave Swallows that build "clay jug" nests under projecting cliffs or under eaves of buildings, and Barn Swallows that have "swallow tails", and build open cup-shaped nests of clay plastered on rafters and beams inside of barns. Still other kin are Rough-winged Swallows and Bank Swallows that tunnel into cliffs of earth. These latter, as well as the Cliff Swallows, prefer to live in colonies. Sometimes hundreds of nests are found in the same cliff.

KANSAS CITY TEACHERS COLLEGE, KANSAS CITY, Mo.